



C95400 ALUMINUM BRONZE "9C"

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
Italy	CuAl11Fe4
BS	AB1C
JIS	H5114
IS	IS 3091: 1999

C95400 Aluminum Bronze, also known by C954, is the most popular, all-purpose aluminum bronze alloy. It provides high yield and tensile strength, good ductility, weld ability and exceptional resistance to wear, fatigue and deformation under shock or overload. Typical applications include bearings, gears, and valve components, wear plate and wear strip. Conforms to continuous cast specification ASTM B505 and centrifugal cast specification ASTM B271

TYPICAL USES:

AUTOMOTIVE: Weld Guns **FASTENERS:** Nuts, Large Hold Down Screws **INDUSTRIAL:** Pickling Hooks, Bearings, Pawl, Worm Gears, Machine Parts, Spur Gears, Heavily Loaded Worm Gears, Pump Parts, Landing Gear Parts, Valve Bodies, Valve Guides, Valve Seats, Bearing Segments for the Steel Industry, Pressure Blocks for the Steel Industry, High Strength Clamps, Bushings, Valves, Gears **MARINE:** Ship Building, Covers for Marine Hardware **ORDINANCE:** Government Fittings

CHEMICAL COMPOSITION

	Al	Cu	Fe	Mn	Ni
Min/Max	10.0-11.5	83.0 min	3.0-5.0	0.5	1.5
Nominal	10.8000	83.2000	4.0000	-	-

IS 3091 : 1999 CHEMICAL COMPOSITION

	Al	Cu	Fe	Mn	Ni
Min/Max	09.0-11.0	83.0 min	4.0-5.0	0.1 - 0.5	-
Nominal	10.8000	83.2000	4.0000	-	-

PHYSICAL PROPERTIES

Product Property	US Customary
Coefficient of Thermal Expansion	9.0 Å•10 ⁻⁶ per oF (68-572 F)
Density	0.269 lb/in ³ at 68 F
Electrical Conductivity	13 %IACS @ 68 F
Electrical Resistivity	80.2 ohms-cmil/ft @ 68 F
Magnetic Permeability (As Cast)	1.27
Magnetic Permeability (TQ50 temper)	1.2
Melting Point – Liquidus	1900 F
Melting Point – Solidus	1880 F
Modulus of Elasticity in Tension	15500 ksi
Specific Gravity	7.45
Specific Heat Capacity	0.1 Btu/lb/oF at 68 F
Thermal Conductivity	33.9 Btu Å• ft/(hr Å• ft ² Å•oF)at 68F

IS 3091 : 1999 Tensile Properties:

Tensile Property	Availability
0.2 percent permanent set proof stress	250 MPa
Tensile strength	600 MPa
Elongation on 50 mm gauge length	15 Percent

SIZES AVAILABLE :

ROUND RODS/BARS	8mm To 100 mm
HEX	10mm To 60mm
SQUARE	10mm To 60mm
FLAT	10mm Min Thickness and max Width 120mm
BILLETS	Up to 200 mm
INGOTS	As per Specification

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